



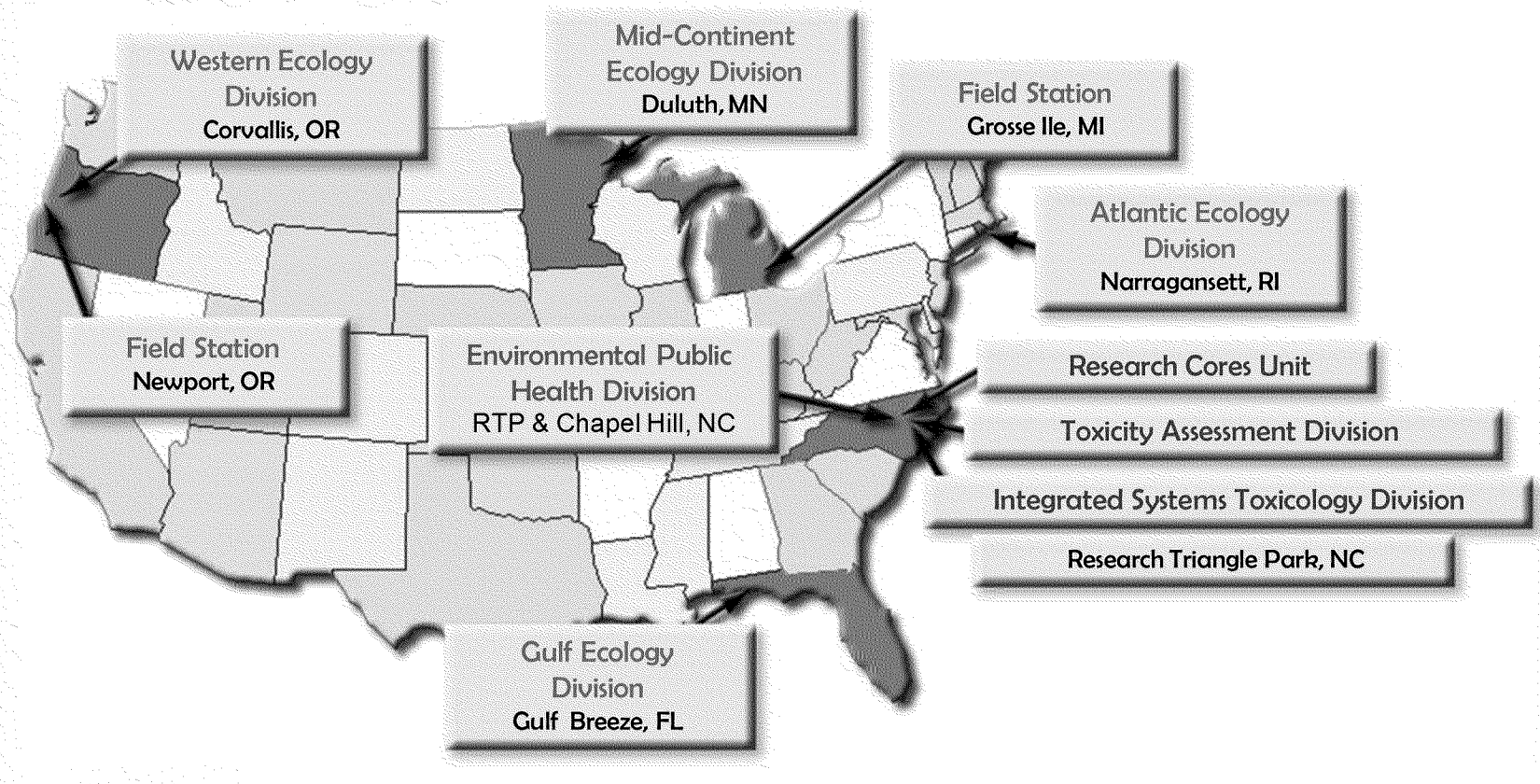
U.S. EPA Office of Research and Development National Health and Environmental Effects Research Laboratory

Gulf Ecology Division

Elizabeth George, Director



ORD's National Health & Environmental Effects Research Laboratory



History of Sabine Island 1875 to Present



1903



1876 – 1903

Ballast Island

1906 – 1936

Quarantine Station

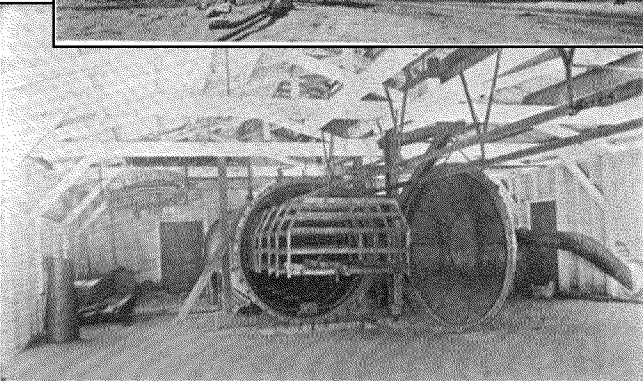
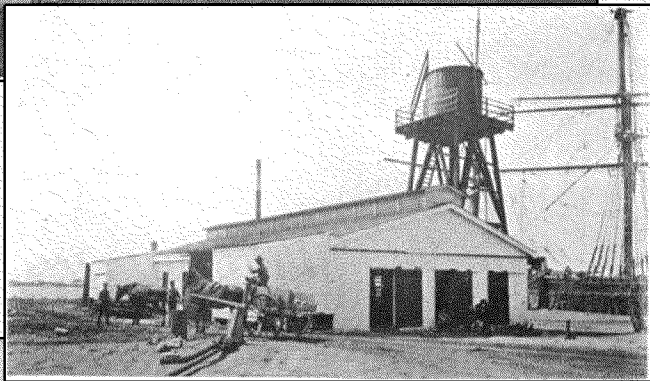
1937 – 1947

Oyster Laboratory

1948 – 1969

Fisheries Research
Laboratory

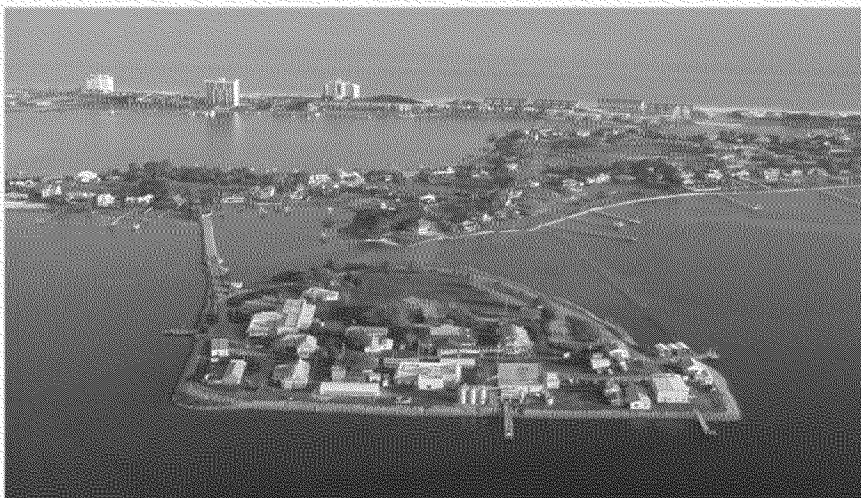
1970 – Present EPA Laboratory



Gulf Ecology Division



- Leaders in marine, estuarine and watershed ecology and ecotoxicology.
- Predict and assess the effects of stressors on the Gulf of Mexico and the Nation.
- Develop tools and provide a scientific basis for environmental management decisions that maximize economic, ecosystem and social outcomes.



Research Focus Areas

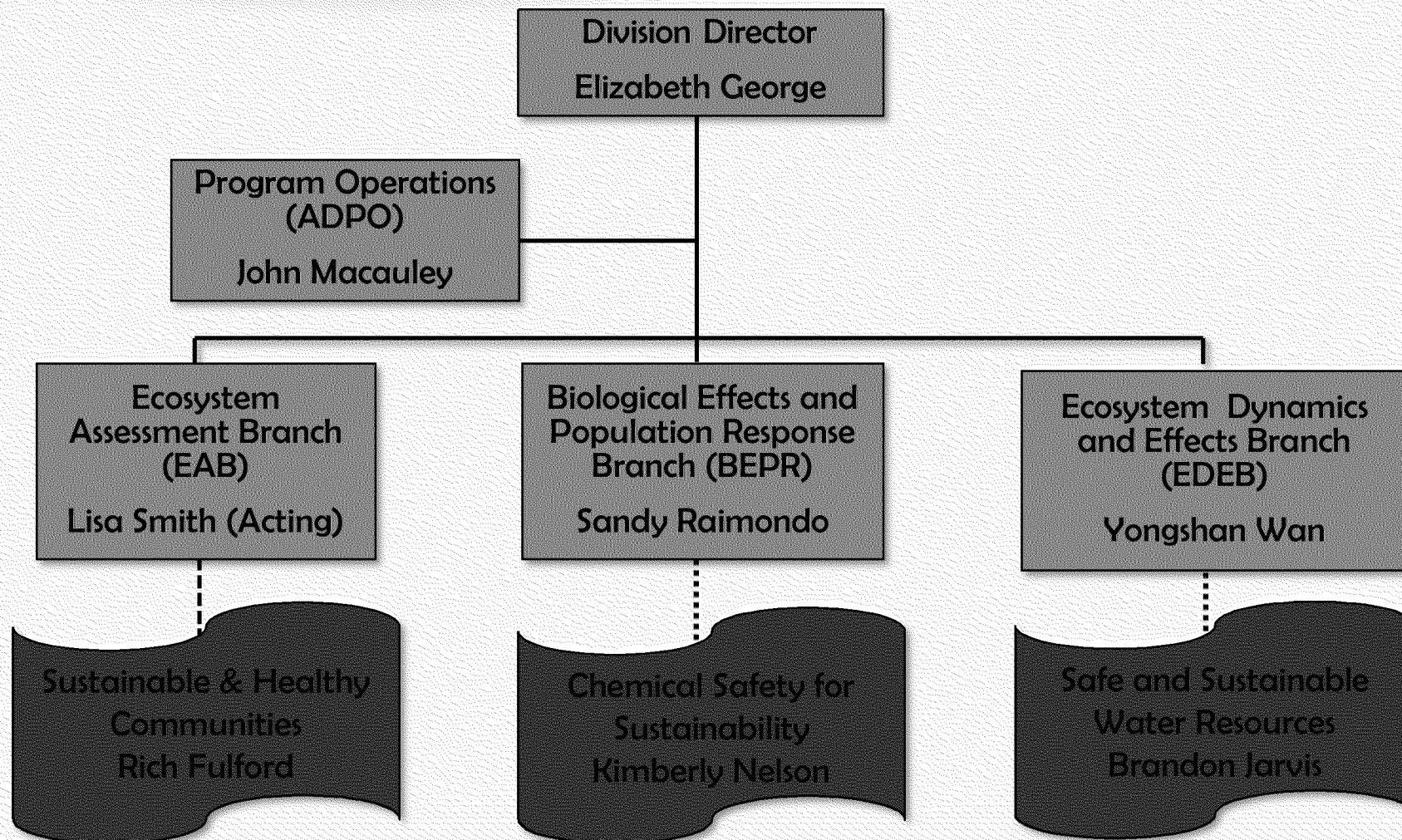
- Nutrients and hypoxia
- Predictive ecotoxicology
- Water and watershed protection
- Ecological assessment and services
- Community sustainability

Facilities

- 16.1 Federally-owned acres
- 66,000 ft² workspace
- 32,000 ft² laboratories
- Seawater system & wet lab
- Coral research lab
- Research fleet

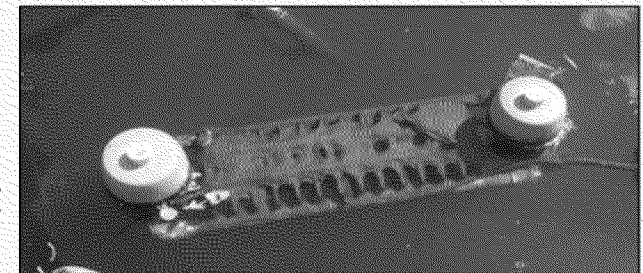
Staff

- 56 EPA Federal employees
- 53 On-site Contractors
- (includes ~18 Student Services Contractors)
- 3 Senior Environmental Employees



State Collaborations

- Establishing a scientific framework to guide the development of numeric nutrient criteria (Florida, Georgia and South Carolina)
- Nitrogen pollution in urban environments (Chico, Florida)
- Innovative biological indicators of nutrients (Alabama and Mississippi)
- Multiple sources of fecal contamination (Turkey Creek, Mississippi)
- Endangered species pesticide risk assessment (California)



Working together to address science needs

State Collaborations: New Projects

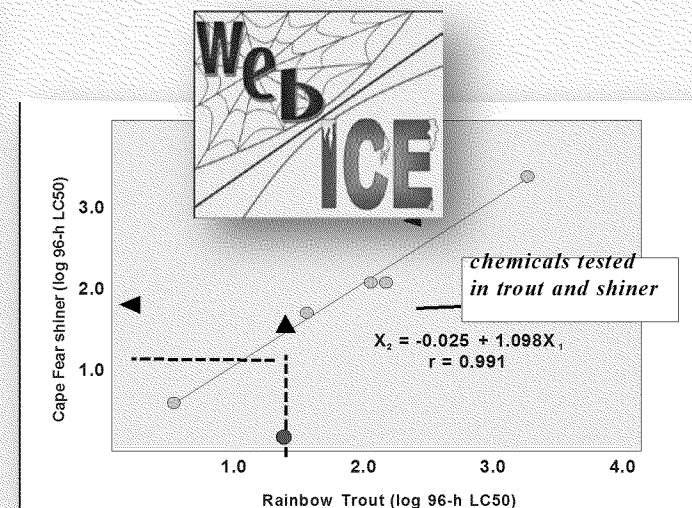
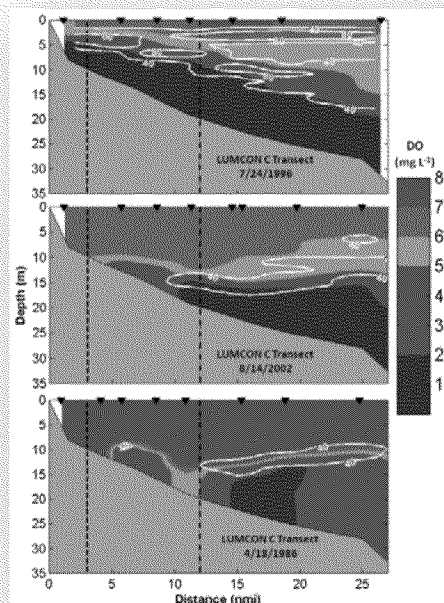
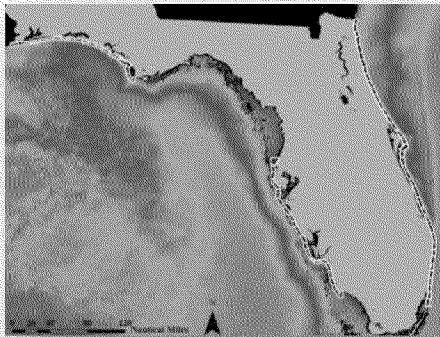
- Ouachita River: Approaches to River Maintenance for Sustainability and Resilience to Flood Impacts (Region 6 and Louisiana)
- Community Resiliency Snapshot Toolbox (Region 10, Washington and Oregon)



Working together to address science needs

Technical Support to EPA Program Offices and Regions

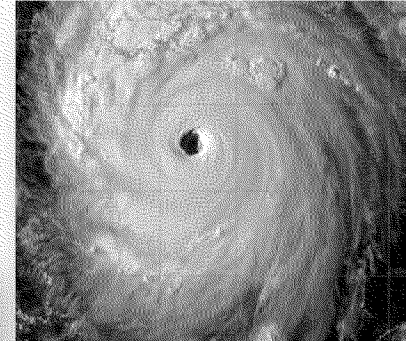
- Numeric nutrient criteria in Florida
- Approaches to address Dissolved Oxygen standards in coastal Louisiana
- Application of interspecies extrapolation toxicity models



Coastal Ecological Crises



- GED has expertise to support crisis response
 - Methods development
 - Survey design
 - Field and laboratory support
 - Data analysis and Interpretation
 - Logistics



Source: Google Images



Source: National Geographic

